



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



AHRQ evidence-based Care Transformation Support

(ACTS) Initiative

January 30, 2019

Kick-Off Agenda/Goals

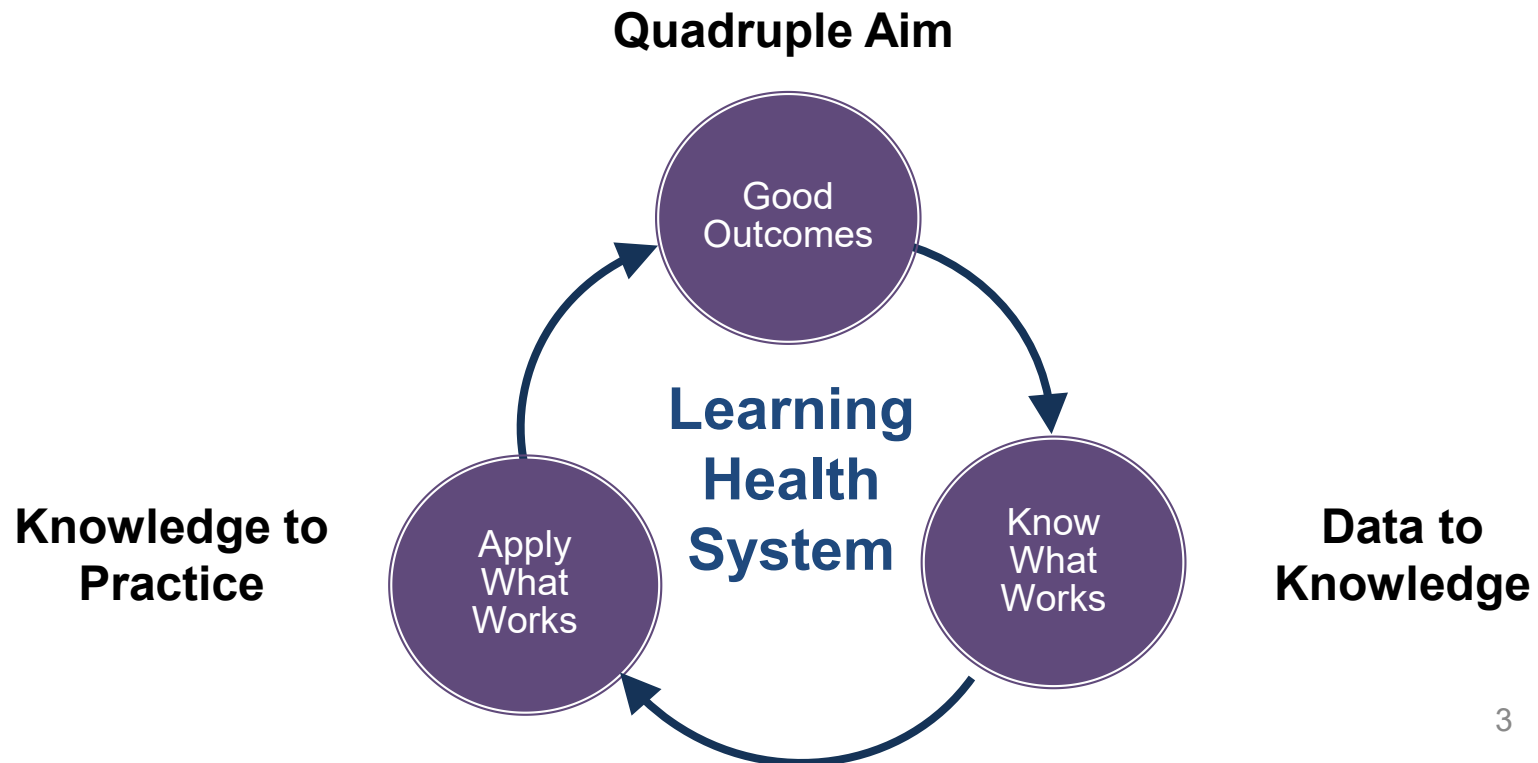
- Build understanding / excitement for project
- Begin shared understanding of care transformation landscape
 - ▶ Goals
 - ▶ Activities
 - ▶ Future state and path to get there
- Define next steps to mutual value



ACTS Supports AHRQs Priorities

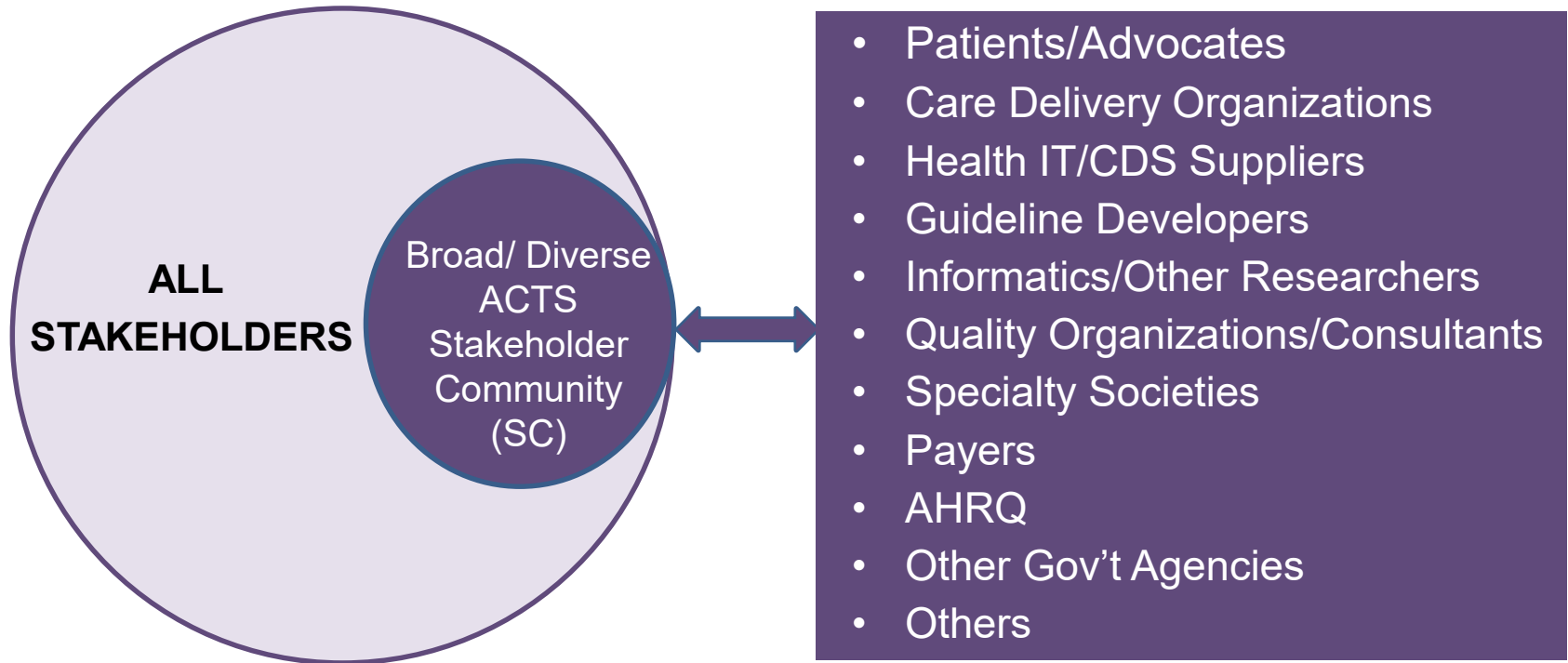


AHRQ Focus Areas: Research | Data | Practice Improvement



Who We Are

Improving Evidence-based Care/Transformation



ACTS Project Support Team



**STEVE
BERNSTEIN**
Govt PM



**JERRY
OSHEROFF**
Project Lead



**CATERINA
LASOME**
CDS SME



**AMAL
SAEED**
Technical Support



**DANI
SYED**
Technical Lead

Who We Are Specifically

(n = 98* as of 1/28/19)



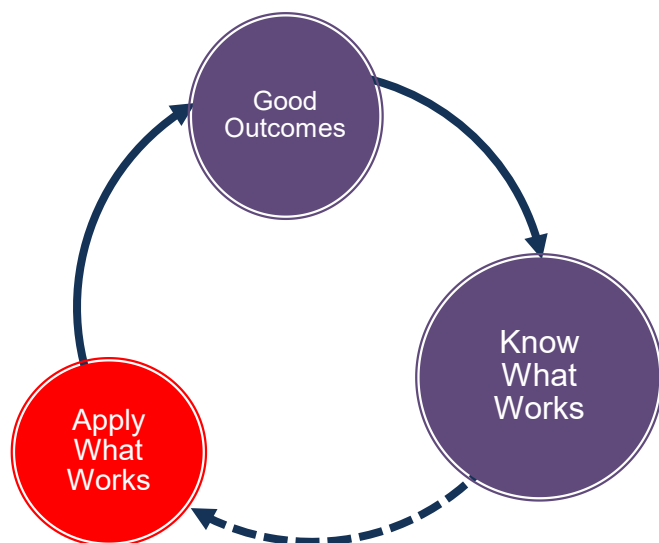
Care Delivery Organizations (29)		Quality Organizations/ Consultants (14)	HIT/CDS Suppliers (11)	Other Govt Agencies (14)
<ul style="list-style-type: none"> • Adventist Healthcare • ASU • Children's Hospital of Atlanta • Children's Hospital of Phila. • DoD • George Washington University • HealthPartners • Inova Health System • Intermountain Healthcare (3) • Kaiser Permanente • Kittitas Valley Healthcare • Lehigh Valley Health Network 	<ul style="list-style-type: none"> • Mayo Clinic • Peninsula Regional Medical Center • Rutgers/Robert Wood Johnson • Texas Health Resources • Vanderbilt University Medical Center (3) • Virginia Mason Med Center • UCSF Medicine • University of Chicago (2) • University of Utah • University of Washington • VA (2) 	<ul style="list-style-type: none"> • Deloitte • IPRO (2) • KLAS • Klesis Healthcare • Mathematica • MITRE • NACHC • NCQA • RTI (5) 	<ul style="list-style-type: none"> • Apervita • Cerner • EBSCO • EHRA/Allscripts • Epic • Health Catalyst • Intersystems • Meditech • Microsoft • Optum • Wolters Kluwer 	<ul style="list-style-type: none"> • CDC (4) • CMS (4) • (DoD) • HRSA (2) • Idaho Dept of Health & Welfare • NLM • NIH • ONC • (VA)

Informatics/ Researchers (4)	Specialty Societies (3)	Patient Advocates (1)	Guideline Developers	AHRQ (22)	Payers
<ul style="list-style-type: none"> • Duke University • Idaho State University • Indiana University • University of Arizona • (Vanderbilt University) 	<ul style="list-style-type: none"> • AAP • ACEP • AMA 	<ul style="list-style-type: none"> • Health-Hats 	<ul style="list-style-type: none"> • (AAP) • (CDC) 	<ul style="list-style-type: none"> • Center for Evidence & Practice Improvement (16) • Center for Financing, Access and Cost Trends (1) • Office of Management Services (1) • ACTS Project Team (4) 	<ul style="list-style-type: none"> • (CMS)

*Names in parentheses are counted elsewhere; numbers in parentheses are individuals

What We're Trying to Accomplish

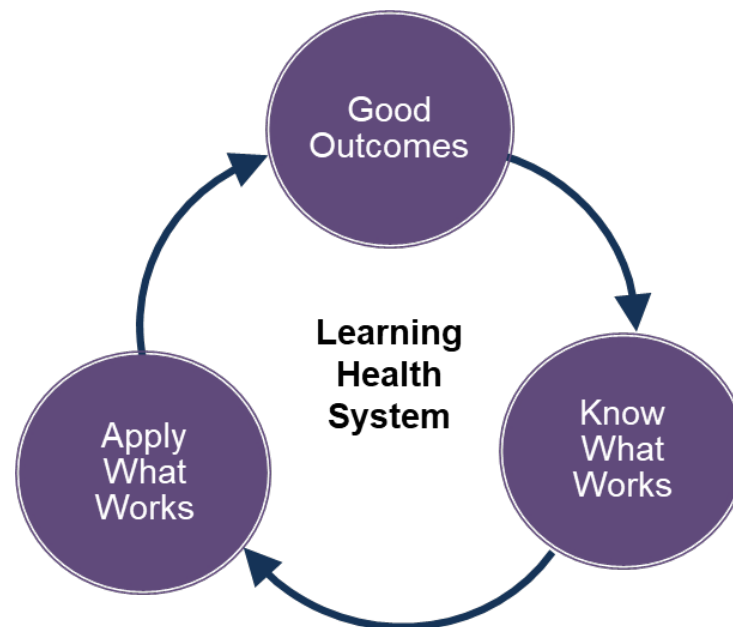
CURRENT STATE



Challenges:

- *CDS 5 Rights not right*
- *Poor information liquidity*
- *Many other problems !!!!*

FUTURE STATE / QUADRUPLE AIM

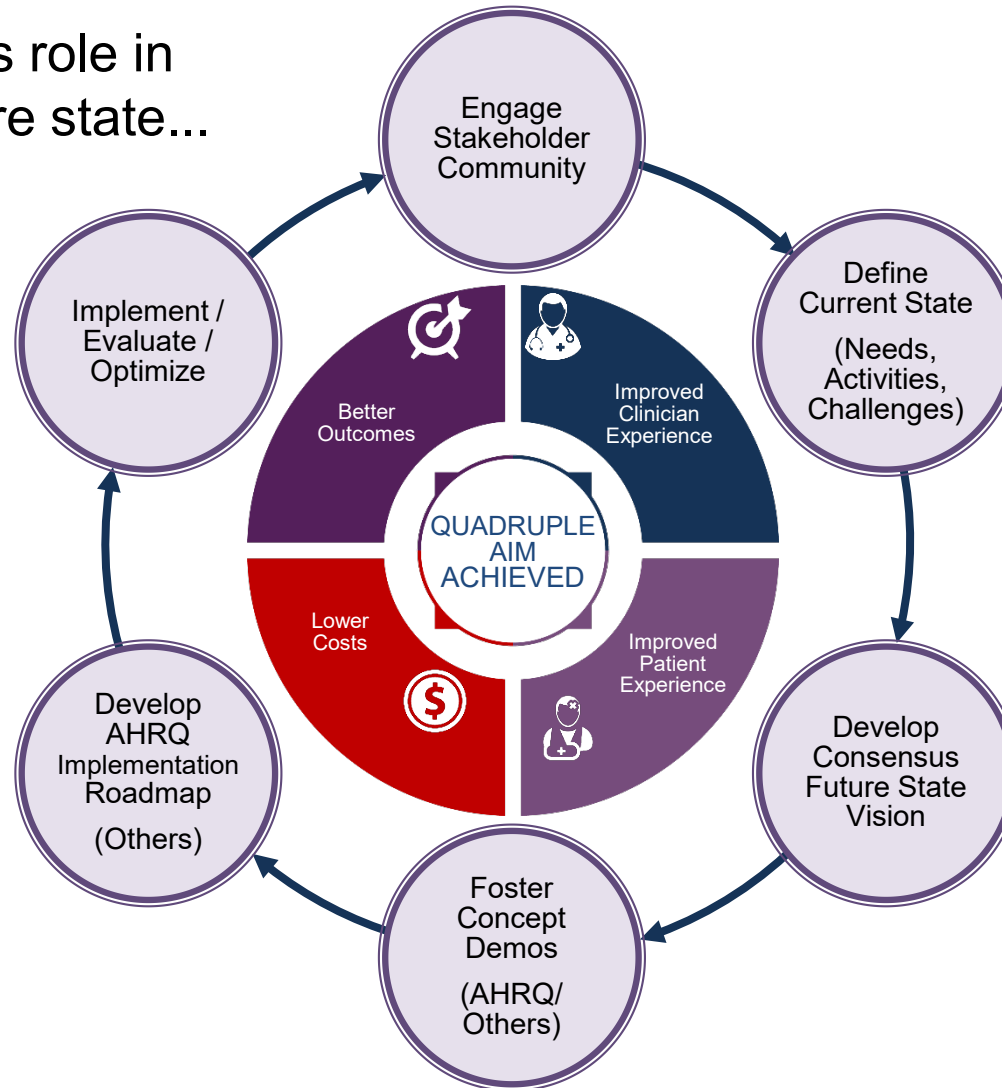


AHRQ's Primary Goal:

To improve access to/use of/value from AHRQ resources to help organizations achieve Quadruple Aim

What We'll Do to Get There

Define AHRQ's role in
delivering future state...



...and also drive
broader progress
for **YOU**

How We'll Work Together



Synthesize current / future states; do pilots, roadmap

- ▶ Review/comment/discuss online documents
- ▶ Regular web-based collaboration calls
- ▶ Opportunistic face-to-face meetings? (e.g., HIMSS)

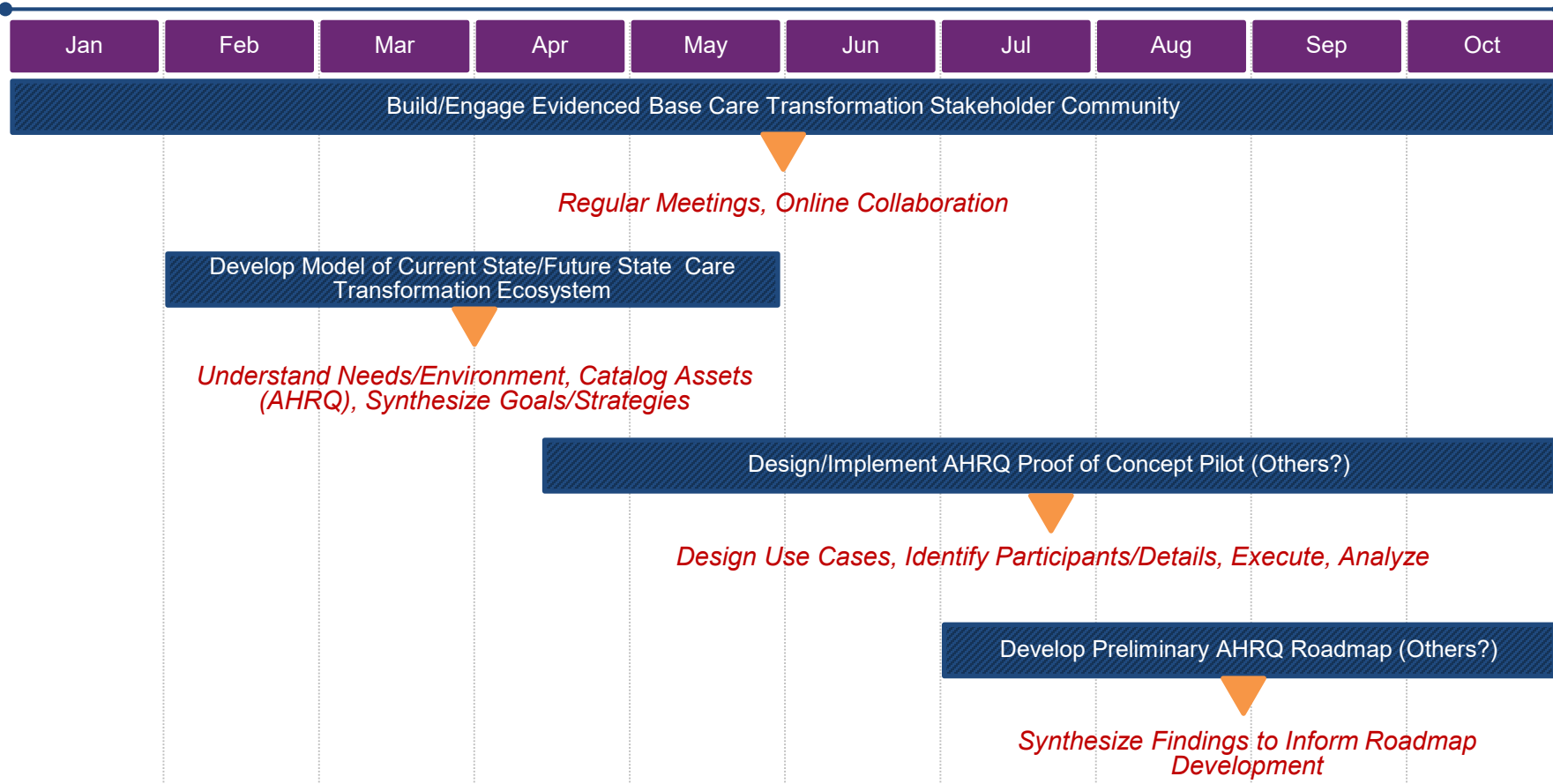
Use Confluence site to underpin collaboration

- ▶ Schedule, Agenda, Minutes, Docs, Contacts
- ▶ Listserv/Discussion Board
- ▶ Shared work/discussion on documents

When We'll Deliver

Project Timeline

2019



Check Point

- ✓ Do you understand this project/goals/output
- ✓ Do you understand your role?
- ✓ Understand participation benefits for you:
 - ▶ Leverage evidence resources from AHRQ/others better
 - ▶ Broaden collaborations for care transformation

What the SC is Producing

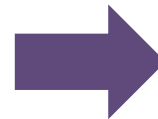
Deliverables to Improve Evidence-based Care Delivery/Transformation:

Users? Needs? (use cases)

- Patients/care teams/QI teams/other

Addressing needs (current state)?

- Evidence/tools (from AHRQ/others)
- Delivery approach
- Successes/obstacles



Proof of concept/roadmap

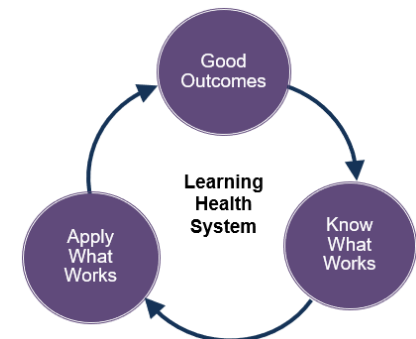
- For AHRQ
- Foster for others

Improvement plans?

- E.g., around organizing/disseminating info to improve care/transformation

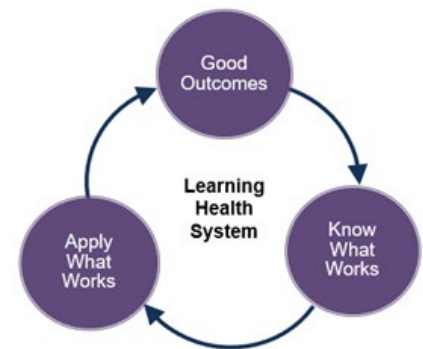
Desired future state?

- For AHRQ and others



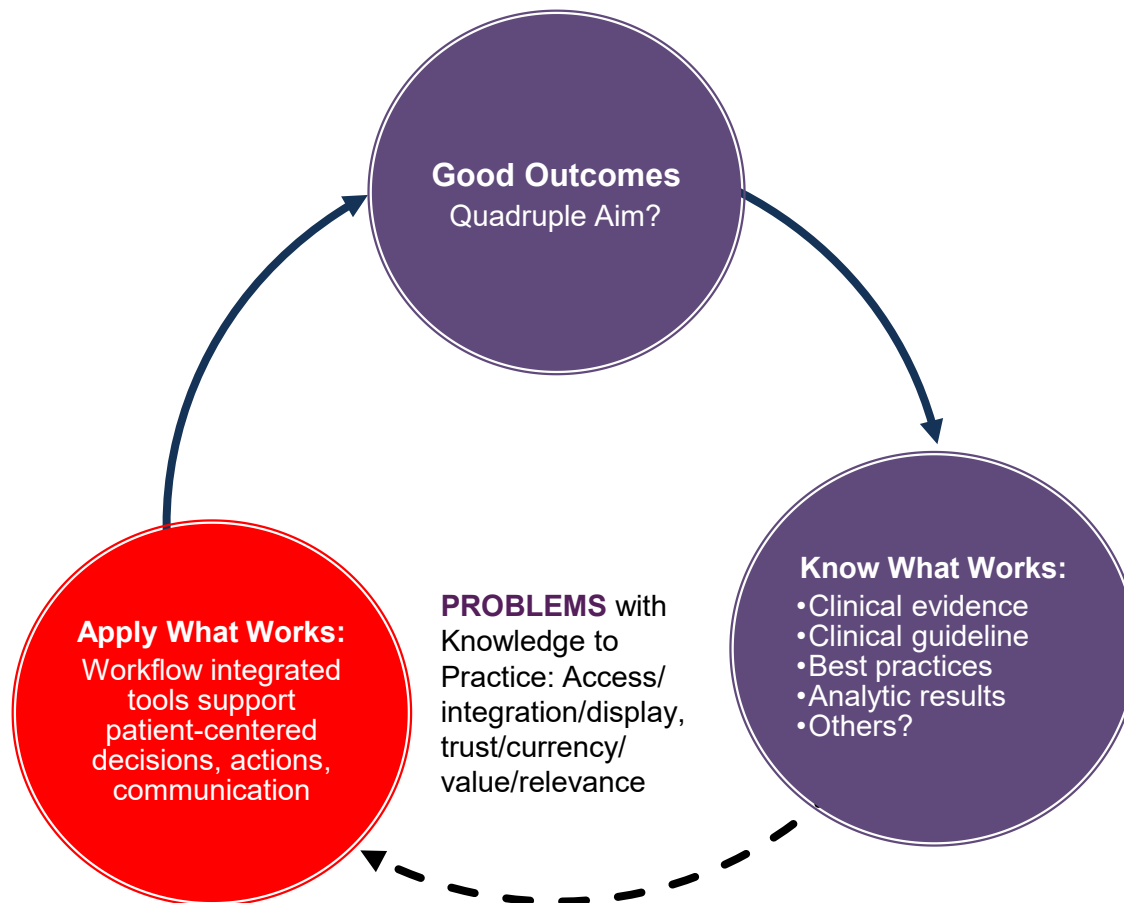
“Good Outcomes” – Quadruple Aim?

- What future state are you driving toward?
- Does Quadruple Aim cover it? (Chat response)
 - ▶ Efficient/effective care processes satisfy patients and care teams, make patients healthier, lower costs
- Anything else/different?

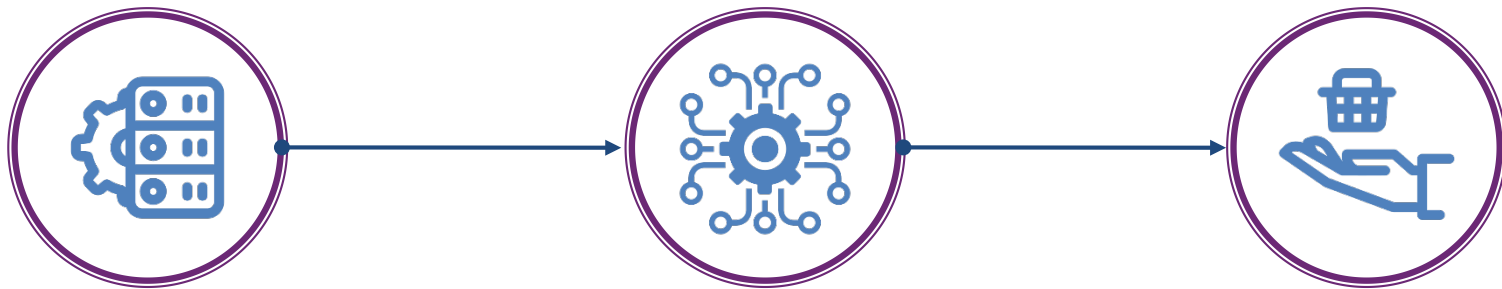


Care Transformation Ecosystem: Framework for Answers

What's happening now, what organizations are changing, and where they're trying to go with each circle and arrow?



“Applying What Works” Framework

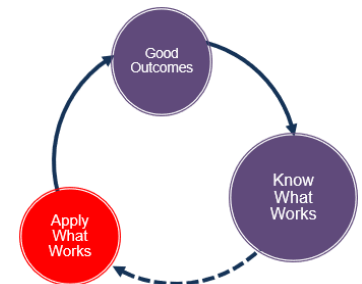


Evidence/Resources

Access/Delivery
Channels

Consumers/Needs

Need to synthesize / understand /
document current state, activities,
future state



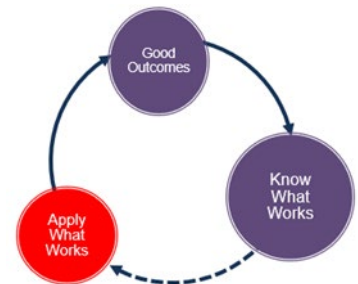
How Can AHRQ/All Support Care Delivery Better?

“CDS 5 Rights” Framework to Improve Care Processes/Outcomes



Complex / Diverse Consumer Needs

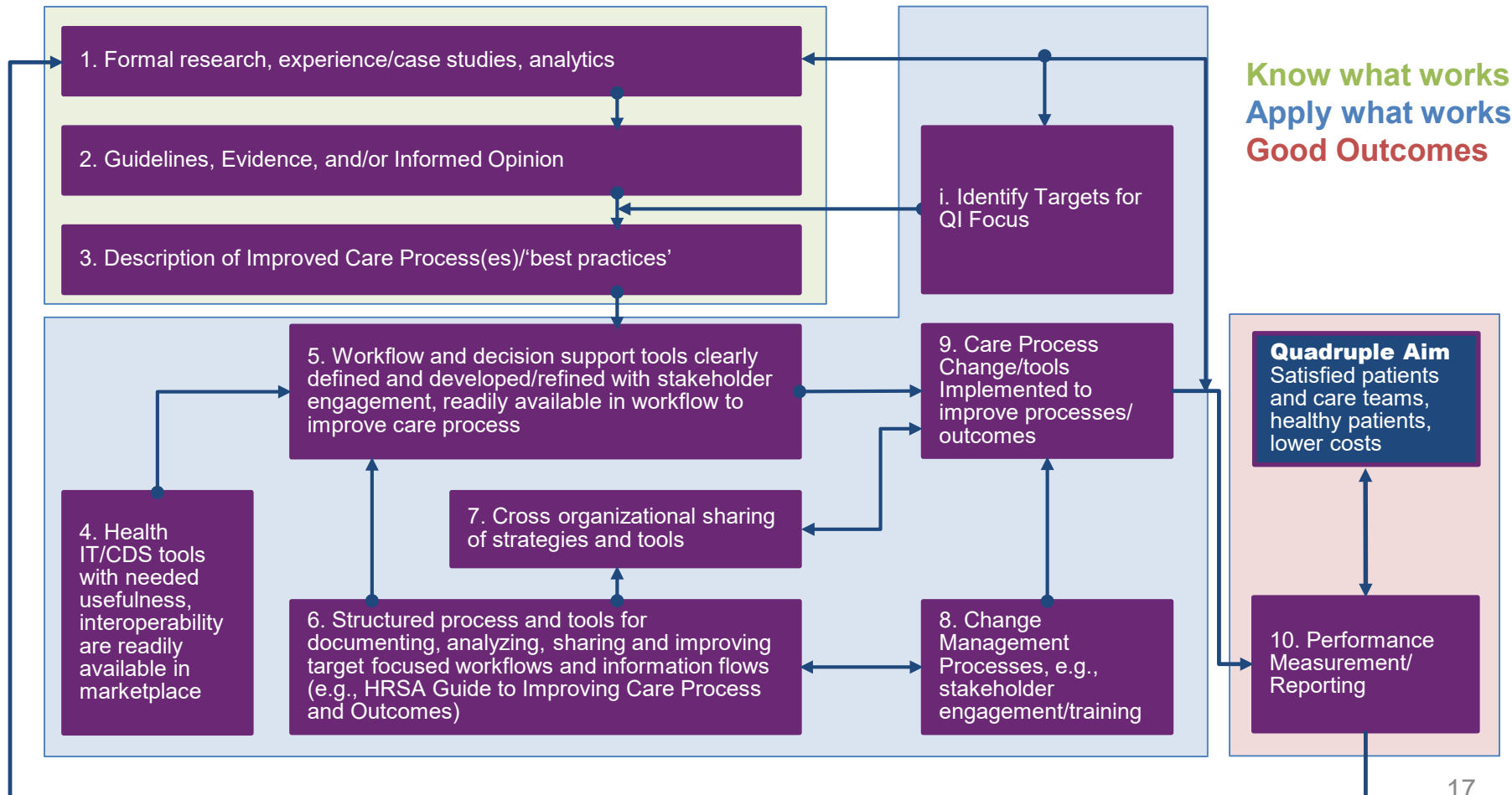
- Patients
 - ▶ What should I know? What should I do?
- Care Teams/Clinicians
 - ▶ What are best actions for this patient?
- QI Teams
 - ▶ How can we change care to improve outcomes?
- Provider Organization Leaders
 - ▶ Where should we focus improvement efforts?
- Other Stakeholders



Sample Current / Future Template

Outside Care Delivery Organization
(*HIT vendors, clinical/informatics societies,
federal agencies, other CDOs, etc.*)

Within Each Care Delivery Organization
(and for Steps i, 8 and 9, within each patient's daily activities)



AHRQ's "What Works" Offerings



i. Identify Target(s) for QI Focus

[National Healthcare Quality and Disparities Reports, HCUP](#)

[National Quality Strategy](#)

[Medical Expenditure Panel Survey](#)

[State Quality Snapshots](#)

HCUP [web page on opioid-related data](#)

1. Formal research, experience/case studies, analytics

[EPC Output/Effective Health Care Program](#)

[Comparative Health Systems Performance Initiative](#)

[CDS Funding Opportunities](#)

[AHRQ Research Studies](#)

[Comorbidities as Predictors of Pain After Total Knee Arthroplasty](#)

AHRQ Research Studies limited to topics "[Pain](#)" and "[Opioids](#)"

2. Guidelines, Evidence, and/or Informed Opinion

[National Guideline Clearinghouse, USPSTF](#)

[Systematic Review Data Repository](#)

[Technology Assessment Program](#)

[Noninvasive Nonpharmacological Treatment for Chronic Pain: A Systematic Review](#)

[AHRQ Grants and Reports related to Opioids](#)

[Interagency Guideline on Prescribing Opioids for Pain](#) [from Innovation Exchange]

Behavioral Health Integration Academy [webpage on opioids and substance abuse](#)

[[Overview of AHRQ's Opioid Activities](#)]

3. Description of Improved Care Process(es)

[AHRQ Patient Safety Network/Patient Safety Primers](#)

[Practice-Based Research Networks](#)

[Team-based approach to managing opioids in primary care \(website/guidance/tools\)](#)

4. Health IT/CDS tools with needed usefulness, interoperability readily available in marketplace

[CDS Connect](#)

[CDS Connect Opioids and Pain Management Artifacts](#)

[Health Information Technology Program](#)

[USHIK](#)

5. Workflow/decision support tools defined/developed/refined, available in workflow

[CDS Connect?](#)

[CDS Connect Opioids and Pain Management Artifacts](#)

6. Process/tools to document/analyze/share/improve target-focused workflow/info flow

7. Cross-organizational sharing of strategies and tools

► [PCCDS Learning Network](#)

► [AHRQ Healthcare Innovations Exchange](#) [not active]

► [PCCDS Learning Network Opioid Action Plan](#) [+ potential ongoing 'Forum']

8. Change Management Processes, e.g., reengineering care delivery, stakeholder engagement/training

► [TeamSTEPPS](#)

► [Comprehensive Unit-based Safety Program](#)

► [Care Delivery System Redesign Resources](#)

► [NCEPCR Tools and Resources for Practice Transformation and QI](#)

► [Improving Primary Care Practice](#)

► [Surveys on Patient Safety Culture](#)

► [Hospital and Health System Resources](#)

► [Long Term Care Resources](#)

► [Nursing Home Safety Resources](#)

► [Behavioral Health] [Integration Academy](#)

► [Patient Safety Organization Program](#)

► [CV Health] [EvidenceNOW](#)

► [PCMH Resource Center](#)

► [Tools to Improve Diagnostic Safety](#)

► [Healthcare -Associated Infections Program](#)

► [Reducing Hospital-Acquired Conditions](#)

► [Continuing Education Activities](#)

► [Resources for Evidence-based Decision Making](#)

9. Care Process Change/tools Implemented

► [Health Literacy](#)

► [Engaging Patients and Families in Care](#)

10. Performance Measurement/Reporting

► [Quality Measure Tools and Resources](#)

► [Consumer Assessment of Healthcare Providers and Systems](#)

► [National Quality Measure Clearinghouse, Primary Care Measures Resources](#)

► [TalkingQuality](#)

► [Pediatric Quality Measures Program](#)

► [Patient-reported Outcomes](#)

► [AHRQ Quality Indicators](#)

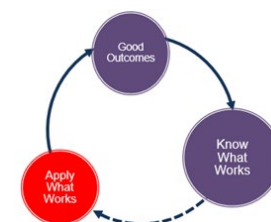
► [Pain Items in CAHPS](#)

Not Yet Classified

► [Registry of Patient Registries](#)

► Social determinants of health data

► AHRQ's health services and markets databases



Categories map to 'Sample Current/Future Template' on previous slide

Improve Dissemination / Implementation



AHRQ Websites, Data, Tools & Resources Better Dissemination / Implementation

AHRQ Silos of Knowledge

- AHRQ Research Publications, Reports (*Grants*)
- USPSTF Task Force Recommendations (*USPSTF*)
- EPC Evidence Practice Centers Reports (*EffectiveHealthcare*)
- Systematic Reviews Database (*SRDR+*)
- Guidelines & Quality Measures (*NGC/NQMC*)
- CDS computable artifacts repository/tools (*CDS Connect*)
- Patient-Centered CDS Learning Network (*PCCDS-LN*)
- Registry of Patient Registries database (*RoPR*)
- Primary Care/Behavioral Health (*Integration Academy*)
- Primary Care Practice-Based Research Networks (*PBRN*)
- Patient Centered Medical Homes Resources (*PCMH*)
- Patient Safety Events Reports/Resources (*PSnet/PSOs*)
- National Healthcare Quality & Disparities Reports (*QDR*)
- US Health Information Knowledgebase (*USHIK*)
- Data Files, Surveys, & Reports (*MEPS, HCUP, CAHPS, SOPS ...*)
- Patient Centered Outcomes Research Studies (*PCOR*)
- Patient Reported Outcomes data initiatives (*PRO*)
- Social Determinants of Health data initiatives (*SDH*)
- Improving Heart Health (*Evidence Now*)
- Teamwork Tools to Optimize Patient Outcomes (*TeamSTEPS*)
- Comparative Health Systems Performance (*CHSP*)
- Comprehensive Unit-based Safety Program (*CUSP*)
- Others (*Health IT, Quality Indicators, Innovations Exchange, etc.*)

Provide an AHRQ Evidence Marketplace

- Open Source
- Trustworthiness
- Synthesized Evidence
- Predictive Data Analyses
- Standards/Governance
- Curate/Harmonize/Manage Content

Mash Up Disparate Evidence Resources & Data Silos

- Integration Engine
- Common Terminology/Taxonomy

Improved Delivery Channels

- Smart on FHIR via EHRs / PHRs
- Open Infobuttons
- EBMonFHIR
- CDSS / Dashboards
- Search / Browse
- Data Visualization
- AI / ML / NLP
- Open APIs
- Webservices
- Mobile
- Others

Quad Aim
CDS 5 Rights

Achieve

- Care Teams
- Patients

- QI Teams
- Guideline/CDS developers
- Policymakers
- Researchers
- Others

?

Other Resources/Silos (Public & .com)

Sampling: CDC, NIH/NLM (PUBMED, MEDLINEPlus, Clinical Trials), CMS, VHA, KP, Mayo, UpToDate, DynaMedPlus, Cochrane, Micromedex, TRIP, CINAHL, MDCalc, JAMAevidence, ClinicalKey, Embase, ACP Journal Club, Visualdx, ExploritEBM, **Many Others**

Specific / Pressing AHRQ Needs

- Define “AHRQ evidence marketplace” to achieve CDS 5 Rights/Quad Aim and satisfy use cases
 - ▶ AHRQ evidence supports insight to action
 - Manage better: integrate silos; common taxonomy
 - Deliver better: browse, search, HIT integrate (CDS/FHIR/ open API, data visualization, dashboards, infobutton, mobile, AI, etc.)
 - ▶ How to integrate with other public/.com marketplaces?
- AHRQ short term solutions/roadmap to align with future state



What People Are Doing to “Apply What Works”



Need overarching framework/architecture/model:

- How does evidence get into care delivery/transformation workflow?
- Incorporate what people are currently doing/planning

Confuence

Health Services Platform Consortium

HSPC | healthcare services platform consortium™
THE HEALTHCARE INNOVATION ECOSYSTEM

HSPC INITIATIVES

HSPC's efforts to create an interoperable HIT ecosystem are divided into a group of initiatives. Each initiative is a combination of people, projects, and resources that together help to achieve a specific aim.

- Facilitate the Creation and Sharing of Applications and Services (Operations - Meetings etc)
- Create a Reference Implementation of a Common SOA
- Develop Terminology and Information Models
- Support Authoring and Sharing of Knowledge Content

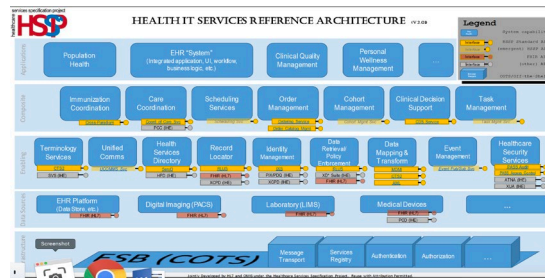
CIIC

Learn more about the Clinical Information Interoperability Consortium!

Next Meeting: July 30-Aug 1, 2018, NIM, Bethesda, MD

solor

New version of the SOLOR Viewer released on 8/10/2018. Includes improvements to LOINC integration and other features.



Office of Public Health Scientific Services (OPHSS)

OPHSS Home | CDC > OPHSS Home > Who We Are

Who We Are

What We Do - Adapting Clinical Guidelines for the Digital Age

What We Do - Meetings

What We Do - Meeting Summary

Leadership

What We Do - Adapting Clinical Guidelines for the Digital Age

Connecting CDC research and evidence swiftly and accurately to those who need it most, including clinicians and patients, can help save lives.

This matters more than ever. As the role of public health in our nation's health care system is broadening and overlapping, we now have more connectivity than ever before.

OpenInfobutton

Search this site

HL7 Infobutton Standard

The HL7 Context-Aware Knowledge Retrieval Standard provides a standard mechanism for EHR systems and knowledge resources to communicate, implementing infobutton capabilities. The Infobutton Standard consists of the following specifications (links to download the specifications at the HL7 Web site are provided below):

- Context-Aware Knowledge Retrieval Application ("Infobutton"), Knowledge Request - normative specification that includes a domain analysis model and a message information model. By itself, this specification is not

Many, many others...

U.S. National Library of Medicine

MedlinePlus
Trusted Health Information for You

Health Topics | **Drugs & Supplements** | **Videos & Tools**

Home > MedlinePlus Connect

MedlinePlus Connect
Linking Patient Portals and EHRs to Consumer Health Information

MedlinePlus Connect helps patients and health care providers access consumer health information at the point of need in a health IT system. Patient portals, patient health



Main Page Categories

- groups
- Work Groups
- User Groups
- meetings
- general

Page | Discussion

EBMonFHIR

[Return to Clinical Decision Support Work Group](#)

The Fast Healthcare Interoperability Resources (FHIR) Resources for Evidence-Based EBMonFHIR is sponsored by the Clinical Decision Support Work Group and co-sponsored by the HL7 International. The goal of EBMonFHIR is to provide interoperability (standards for data exchange)!

This page will be updated soon with details about how to get involved and stay informed. The first EBMonFHIR track was held at the FHIR Connectathon on September 29th.

Introduction

- [Video 1 - Introduction to EBMonFHIR](#) 17 minutes

Mobilizing Computable Biomedical Knowledge

Welcome to the interim home for the MCBK community.

We are a diverse group of stakeholders - from biomedical researchers and librarians, to clinicians, health informatics software vendors and many others - organizing around the goal of transforming health by mobilizing Computable Biomedical Knowledge.

What is Computable Biomedical Knowledge?

"Computable Biomedical Knowledge, or CBK, is the result of an analytic and/or deliberative process about

Consensus Future State

- Satisfy care delivery/transformation needs
 - ▶ Leverage AHRQ and non-AHRQ assets
- To make this happen:
 - ▶ Understand actors/needs/key use cases
 - ▶ Map needs to AHRQ/other assets and delivery channels
 - ▶ Incorporate resources into health IT
 - ▶ Integrate content/delivery into workflow

What does this look like?



Check Point

- ✓ Understand deliverables?
- ✓ Feedback/input on framework content/structure?
- ✓ High priority use cases/targets?
 - ▶ Opioids, preventive care, HTN/DM, other?
- ✓ Pressing input on AHRQ info delivery?

Next Steps

Stakeholder Community	Project Team
<ul style="list-style-type: none">• Meeting schedule<ul style="list-style-type: none">▶ Every other week?▶ Same time slot?• Meet at HIMSS?• How do AHRQ assets support your work? How can they do better?<ul style="list-style-type: none">▶ Discuss via Listserv• Other key stakeholders?	<ul style="list-style-type: none">• Establish regular meetings• HIMSS meeting Doodle Poll• Listserv launch• Continue building SC members• Confluence collaboration site• Agenda, goals for next meeting

Check Point / Closing Discussion



- ✓ Chat your thoughts on:
 - ▶ OK to meet every other week? Other suggestion?
 - ▶ Meet at HIMSS?
- ✓ Questions/concerns/suggestions about SC collaborations?
 - ▶ We'll send you instructions for use of the listserve
- ✓ Other comments/suggestions/discussion?